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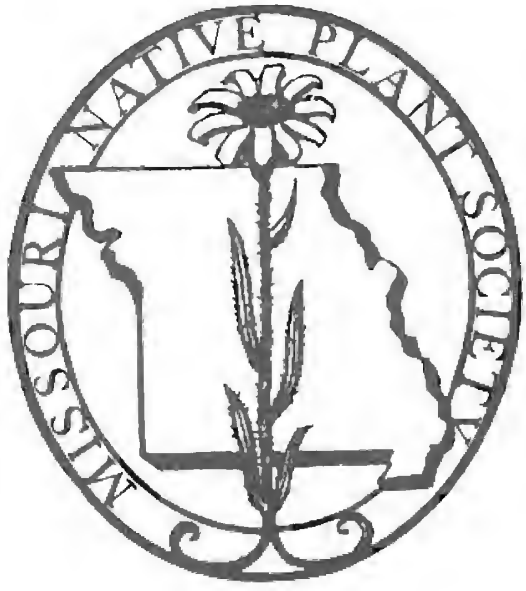
Missouriensis



JOURNAL OF THE

MISSOURI NATIVE PLANT SOCIETY

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Missouriensis is the official publication of the Missouri Native Plant Society. Founded in 1979 as a non-profit corporation, the Society is devoted to the conservation and study of the plants growing wild in Missouri, to the education of the public about the significance of the native flora and its habitat, and to the publication of related information.

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MINUTES OF THE MISSOURI NATIVE PLANT SOCIETY BOARD OF DIRECTORS MEETING DECEMBER 7, 1985

Call to Order: The meeting was called to order by President David Castaner at the Burr Oak Woods Nature Center, Blue Springs, Missouri at 9:30 A.M. Other board members present were: John Doggett, Karen Haller, Doug Ladd, Nancy Morin, Sherry Morgan, Ginny Wallace, Mervin Wallace, and Wallace Weber. Other members and guests present for the meeting were: Bill Clark, Bill Dierker, Pat DeLozier, Linda Ellis, Al Haller, Marguerite and Bud Solomon, and Joanne Watkins.

Minutes: Minutes for the preceding meeting were read. Mervin Wallace noted a $5.00 error that needed to be corrected in the Treasurer's report. Minutes were approved with the correction.

Treasurer's Report: Treasurer Merv Wallace gave the following operating statement: balance on hand 9/2/85, $4,332.99; income from membership dues and contributions, $457.25; for a total of $4,790.24. Disbursements: $25.25 to Conservation Employees Credit Union for opening a new account ($25.00 to savings account, $.25 charge for new account); $3.05 to Missouri Botanical Garden Library for photocopying; $12.00 to Jim H. Wilson for coffee and donuts (June meeting); $66.00 to Ginny Wallace for postage for dues notice; $4.74 to Bryan's Office Supplies for rubber stamp; for total disbursements of $111.004. Balance on hand 12/2/85, $4,679.20. Dues notices were mailed November 5. Total number of members as of 12/2/84 is 295.

Committee Reports: Environmental Action and Education: Dave Castaner mentioned that this committee had been revised at the last meeting, and John Doggett is the new chairman. Castaner will be reviewing other standing committees and considering changes. Field Trips: Ginny Wallace mentioned that a member had called her and asked for more field trips. These trips have to be done on a local level, and Ginny asked that anyone interested in leading field trips should contact her. Awards: Ginny Wallace noted that information on awards will be published in the next issue of Missouriensis. Ginny requested authorization to order four more plaques. After discussion, Sherry Morgan made the motion, Wally Weber seconded and it was passed unanimously.

Brochures: Ginny Wallace and Dottie Epstein had discussed new brochures. Board members agreed that new brochures are needed, but that full color is too expensive. Ginny agreed to have a mock-up to present by the next meeting.

Future Meetings: Meeting dates and field trips were discussed. The next meeting will be in Warrensburg, April 25-26, in conjunction with the Missouri Academy of Science. The next annual meeting will be held June 13-14 at Big Lake State park with field trips to the loess hill prairies. Pat DeLozier agreed to lead a field trip to look at aquatic

plants in early July. This trip will be along the floodplain of the Missouri River in Lafayette County. The fall meeting will be held September 20th in Ste. Genevieve County. Wally Weber suggested a fern field trip and agreed to contact Jim Kelly and Paul Redfearn regarding field trips. Other suggestions made for future field trip meetings included woody plants in southeast Missouri, Indian Creek in Howell County, Holly Ridge State Forest on Stoddard County, and sites in Oregon County.

Missouriensis: Nancy Morin lead a discussion of the problems with Missouriensis. The main problem has been lack of material and this has resulted in less contact with members. Some members feel Missouriensis is too technical while some professionals feel it is not technical enough. Nancy suggested that Missouriensis could become more structured with articles assigned ahead of time on a particular topic. Nancy also indicated that if anyone else was interested in editing Missouriensis she would gladly step down. The discussion following resulted in comments from most everyone present. After a lengthy discussion, Dave Castaner made the following motion: Moved that a final issue of Missouriensis be published for 1985 and that in 1986 the society publish two issues of Missouriensis per year and four newsletters. After discussion, the motion was changed to six newsletters per year. The motion was seconded by Sherry Morgan and passed unanimously. Then the production of the newsletter was discussed. Finally, three volunteers stepped forward! The newsletter editors are Linda Ellis, Sue Hollis and Joanne Watkins from the Kansas City areas. Nancy Morin asked for suggestions for Missouriensis. Topics mentioned were history of Missouri botany, plant families, origin of scientific names, and new species for the state accompanied by new keys and illustrations. Newsletter topics mentioned were lists of new members, meetings and field trips, items from other plant society newsletters, a question and answer column, an a contest to name the newsletter. An editorial committee was established to determine what information should go in Missouriensis or the newsletter. Committee members are the current editors, Dave Castaner, Paul Redfearn, Doug Ladd and Ginny Wallace.

Inventory and Missouri Checklist: Since Jay Raviell has moved to Illinois, Dave Castaner called for a discussion of the inventory project and checklist of Missouri plants. Wally Weber explained that he is in the process of digitizing county maps from Steyermark's Flora of Missouri. Then new records can be added and a new dot atlas produced. Weber expects to have the digitizing completed by the end of the spring semester. Board members discussed the publication of a Missouri checklist, and noted unresolved issues such as level of taxonomy, new synonyms and standardization of common names. Nancy Morin mentioned that Sue Taylor is working on revised nomenclature. Dave Castaner suggested that since we have come to a decision point, the inventory committee might present a written report to the Board indicating the present status of its work. Then perhaps the goals and missions of the committee need to be redefined or restated (as needed), then a new committee constituted to implement these goals.

MONPS Projects: Previous suggestions have been made regarding spending some of the Society's money on worthwhile projects. Ginny Wallace moved that MONPS provide $250.00 to students of Society members for expense money for a project that adds to the knowledge of the flora of Missouri. After a lengthy discussion, Wally Weber seconded the motion, which then passed unanimously. Dave Castaner asked that the Awards Committee work out the specific details and guidelines for this project and report back to the Board.

Other Business: Dave Castaner announced that he would check into Society members getting a discount price on the Flora of Missouri from Iowa State University Press. Ginny Wallace proposed the idea that the Society set up a speaker's bureau, making programs available to groups in their area. John Doggett made this motion, Wally Weber seconded it and it was passed unanimously. An announcement will be put in the newsletter. The Board commended the St. Louis chapter for its work at the flower show in St. Louis and all other activities on behalf of the Society. It was agreed to have the St. Louis chapter newsletter sent to Linda Ellis so that items of interest could be included in the MONPS newsletter.

Adjournment: The meeting was adjourned at 4:00 P.M.

Respectfully submitted,
Sherry Morgan, Vice President

MINUTES OF THE MISSOURI NATIVE PLANT SOCIETY ANNUAL BOARD OF DIRECTORS' MEETING APRIL 26, 1986

Call to Order: The meeting was called to order by President David Castaner at 9:00 A.M. in the Science Library at Central Missouri State University, Warrensburg. Other board members present were: Melvin Conrad, Karen Haller, James Key, John Molyneaux, Sharon Morgan, Paul Nelson, Joanna Turner, Ginny Wallace, and Wally Weber. Other members and guests were: David Bogler, Patrick DeLozier, Bob Eastman, Linda Ellis, Catherine Filla, Bill Gant, Al Haller, Sue Hollis, David LaPlante, Ken McCarty, Susan and Dick Russell, Bill Summers, and Sue Taylor. Of the total number present, one was from the Columbia Chapter, three from Jefferson City, three from Kansas City, and nine from St. Louis.

Minutes: Minutes from the preceding meeting were approved as read.

Treasurer's Report: The operating statement was presented by Ginny Wallace in the absence of Treasurer Merv Wallace. Balance on hand 12-2-85: $4,679.20. Income from operations: membership dues, $1,367.50; interest from checking account, $184.69; and $578.58 from the Arkansas Natural Heritage Commission (a payment due Gary Reese, but rolled over by MONPS as the Committee could make payments only through a non-profit organization), for a total of income and cash of $6,809.97. Disbursements were: $66.00 and $71.00 for stamps for the newsletter, $18.00 to St. Louis Chapter for dues, $28,77 for other newsletter expenses, and $578.58 to Gary Reese, for a total of $762.45. Balance on hand 4-24-86, $6,047.52. There were 288 paid members as of 4-24-86 and 72 members who had not yet renewed.

Committee Reports: Editorial Committee: A meeting of this committee was held in Jefferson City and their decisions are to be published in the newsletter. Dave Castaner discussed the difficulties in deciding whether articles should be published in Missouriensis or the newsletter. This decision is mostly up to the editor of Missouriensis, but the objectives of both publications need to be clarified. Paul Redfearn has agreed to determine the format that should be followed by articles submitted to the journal. Field Trips: Chairman Ginny Wallace announced that her March 29th field trip to the Burr Oak Woods Natural Area drew 50 people and led to the formation of a Kansas City chapter. Several upcoming field trips have been announced in the newsletter. Membership Committee: Ginny Wallace indicated that 72 members have failed to renew after receiving a second notice, and she is considering writing some of them a personal note. Awards Committee: Ginny Wallace had received nominations from only one member for the awards to be given at the annual meeting in June. Also, only one grant application had been received. A replacement is needed on this committee for Gary Reese, who has moved to Michigan, and the board authorized Ginny and Paul Nelson to expand the committee as they see fit. Inventory Committee: There was a lengthy discussion of the need to redefine the objectives of this committee. Paul Nelson pointed out the problem of deciding when to stop and publish a Missouri flora update, and Wally Weber agreed that it is an ongoing project that can't be achieved in the next year or so, but it has to be cut off at

some point in time. Nelson raised the possibility of using MONPS funds to hire a student to assist in the project, and Sue Taylor suggested exploring financing from other groups as well, since the work will be valuable to the entire state. John Wylie announced receipt of a letter from Peter Raven proposing that the Department of Conservation put someone at the Missouri Botanical Garden to revise Steyermark's Flora of Missouri, and President Castaner asked that MONPS be kept posted on this. Wally Weber mentioned that there are many phases to updating, including county records, distribution maps, revised nomenclature, etc., and possibly Steyermark's work could be updated, but kept essentially as it is and a simplified field guide, which gives more of a concept of family characteristics, could be separately prepared. A mid-summer meeting of the Inventory Committee was decided upon, probably to be held at Meramec State Park, where chairman Jay Raveill will be working. Other members of the committee are Paul Nelson, Doug Ladd, and Wally Weber. Anyone interested in joining the committee should contact Dave Castaner.

New Chapters: Dave Castaner announced that we now have four chapters, which are located in Columbia, Jefferson City, Kansas City, and St. Louis. He asked that each chapter appoint two members (one of whom should be the treasurer) to be on a committee to review the role of chapters regarding the dues problem and representation on the state board. Sue Hollis agreed to contact the other chapters, set up a meeting, and have solid proposals by the winter meeting. Minutes, treasurer's reports, and newsletters from the chapters should be in archives and records have to be kept for the Internal Revenue Service. Ginny Wallace moved that seed money of $100.00 for each of the three new chapters be provided. The motion was seconded by Mel Conrad and passed unanimously. Wally Weber mentioned the possibility of a chapter forming in Springfield.

Resignations and Appointments: Gary Reese has also had to resign from the Steyermark Archives Committee, and David Bogler, who had already helped on the project, will contact Betty Nellums to see if they can work out a way to continue with it. Ginny Wallace announced that she would like to resign as field trip chairman and volunteered to become membership chairman, since all the financial records and mailing lists are already in her office. Much gratitude was expressed to Ginny for all the work she has done in planning truly outstanding trips for the society. Ken McCarty, new Natural Areas Coordinator for the Department of Natural Resources, was appointed new field trip committee chairman.

Future Meetings: The annual meeting will be held at Big Lake State Park in northwest Missouri, with the board meeting and/or annual meeting possibly to be held Friday night, June 13th, and field trips on Saturday, June 14th. Paul Nelson will check on the availability of a meeting room for Friday night, and details will be given in the newsletter. The fall meeting is still planned for September 20, in Ste. Genevieve County.

Election: It was announced that Wally Weber and Patrick DeLozier have been nominated to fill the two board positions that expire in June. A notice will

be sent out asking for other nominations, which should be sent to nominating committee members Doug Ladd or Bill Summers. A ballot will be placed in the next newsletter.

Display Board: Ginny Wallace proposed securing a permanent display board for the society similar to the one she arranged for the MONPS booth at the Endangered Species Day at the Missouri Botanical Garden. She was authorized to see about having one made up.

Adjournment: The meeting was adjourned at 11:00 A.M.

Respectfully submitted,
Joanna Turner, Secretary

AN ORCHID TRANSPLANT

Pat Grace[1]

Introduction

The purple fringeless orchid, Habenaria peramoena Gray, was first discovered by the late botanist J. H. Kellogg at Iron Mountain Lake in St. Francois County in 1928. The orchid is currently listed as status undetermined on the state list of rare and endangered species.

In July 1985, Mervin Wallace, Assistant Heritage Biologist with the Missouri Deparment of Conservation, went to this site and found forty-two blooming specimens and two sterile plants. He thinks more plants may be there. He also observed in the area Wild Sweet William (Phlox maculata L. var. pyramidalis (Smith) Wherr)y, a sedge (Carex triangularis Boeckl.), and Rushfoil (Crotonopsis linearis Michx). Wallace is exploring the state for rare and endangered species, researching historic botanical records and visiting sites where such plants have been found.

The habitat at Iron Mountain Lake is part of a wooded flood plain not frequently flooded. The location is in a small resort town in the leadbelt region of eastern Missouri. Town official Mayor John Rogers was quite interested when he learned there were orchids almost in his front yard. "Didn't know there was such a thing," he said.

A problem exists, however. Plans for a city park are complete and development will soon begin in the same area where the orchids grow. Wallace included this information in his field report to the Missouri Natural Heritage Inventory, and correspondence began between the state agencies involved with the park planning and rare plant protection. Sherry Morgan, Botanist with the Missouri Department of Conservation, recommended the orchids be moved to a safer site.

During the fall 1985 meeting of the Missouri Native Plant Society (MONPS), the members decided to take on the project of transplanting the orchids. Several members from the St. Louis area agreed to help. On September 19, Karen Haller, John Molyneaux, and I met Wallace near Iron Mountain Lake to begin the transplanting project.

Finding the Orchids

We drove to the upper shore, parked and walked with shovels, buckets and burlap bags into thick underbrush and woods. We soon realized we were searching for a needle in a haystack because of the changes the purple fringeless orchids must have made in just two short months. After Wallace

found a fallen log he had seen in July to use as a landmark for the plants, he and Karen Haller found the first orchid, which I'm sorry to say (with that expression to infuriate all plant lovers), "looked just like another weed," and a broken, bedraggled one at that. What must have been lovely rose-purple blossoms in July were now well-camouflaged green-brown seed capsules on stalks only eighteen inches to three feet tall. Of the twenty plants originally seen in that spot, we found only six more. We carefully dug them up and wrapped each with a burlap bag, being sure to include a generous ball of soil around the roots. Most orchids are associated with fungi in the soil surrounding their roots and should not be moved bare rooted, a fact mentioned by Sherry Morgan in her recommendation.

Only seven plants were taken because we had to meet Conservation Agent Mike Christensen at nearby Bismark Lake at 12 o'clock, and the time was close to that. We went out of the woods with our gear, and with sharp eyes we observed plants and shrubs as we left. Karen Haller took field notes of our observations of Beggar Ticks (Bidens vulgata Greene), Grape Fern (Botrychium dissectum Spreng.), Virginia Knotweed (Polygonum virginiaum L.), Spotted Touch-me-not (Impatiens capensis Meerb.), Clearweed (Pilea pumila (L.) Gray), Tall White Aster (Aster simplex Willd.), Blue Lobelia (Lobelia siphilitica L.), and Moneywort (Lysimachia nummularia L.).

Transplanting

We drove to Bismark Lake in adjacent Iron County. Bismark Lake is an impoundment administered by the Missouri Department of Conservation. MDC Agent Mike Christensen was waiting for us and we boarded a sturdy boat for the trip across the lake. We were headed to a site that was well protected and similar to the original spot at Iron Mountain Lake. Wallace had visited Bismark Lake the day before to locate the site.

We navigated carefully around tree stumps at the upper end of the lake. This took us up the creek source to the secluded site by the narrowed water passage. We pulled up to shore, unloaded, and walked a short distance into the underbrush. Once we found a good spot, we dropped everything - except the orchids, which we put down gently!

Wallace took a tape measure out full length along the ground and asked us to place the plants at even intervals along this line. We dug holes and planted the orchids, then we carried buckets of water from the creek to soak them thoroughly.

Once the orchids were in the ground, Wallace attached round metal discs to yellow plastic tent stakes. On the discs were code numbers for each plant to be later recorded in the Missouri Natural Heritage Inventory. He drove a tagged stake into the ground on the same side of each plant in line with the tape. At each end of the long line he placed a small red triangular plastic flag on a short wire to mark the site. At the shore he marked the location with blue tape tied to a branch. These markers will help to relocate the site and the plants, and the documentation is needed to monitor the population data on the survival rate of orchids.

Our job completed, we boarded the boat for the ride across the lake to our cars, where we took a few pictures and said our goodbyes.

The trip was special and unique for me; and I have great respect for Merv Wallace, who shares his experiences and knowledge willingly. He is a good teacher and a patient man. This task was important and I'm glad to have shared it with him and my fellow MONPS members Karen Haller and John Molyneaux. By these field trips we learn new things and recognize plant associations. We share the interest in Missouri native plants and the concern for what happens to more fragile species.

[1] 30 N. Iola Drive, St. Louis, Missouri 63119

Seed capsule of Habenaria peramoena.

Mervin Wallace, Assistant Heritage Biologist

CONVERSATIONS WITH JULIAN STEYERMARK:
The Flora of Missouri Years

interviewed by Gary A. Reese
Missouri Department of Conservation

August 9, 1985
Missouri Botanical Garden
St. Louis, Missouri

While many people are aware of Dr. Julian Steyermark's contributions to our knowledge of Missouri's flora, they know little of the history behind his efforts at publishing the Flora of Missouri. Fewer still are aware that professionally he is a specialist on tropical American flora and did most of his Missouri research in his spare time. Therefore, it seems fitting to publish this brief transcript describing some of the interesting history behind the Flora of Missouri.

This transcript was made from a tape-recorded interview with Dr. Steyermark (denoted JAS). The interviewer was Gary Reese (denoted GAR), formerly a biologist with the Missouri Department of Conservation. The interview occurred on Friday, August 9, 1985, in Dr. Steyermark's office at the Missouri Botanical Garden. During the taping, Dr. Steyermark was viewing old (1930s) photographs that he had taken during plant collecting trips in Missouri and trying to recall times and places for some of the uncaptioned prints. This was part of an ongoing Missouri Department of Conservation/Missouri Native Plant Society project to catalog the approximately 1400 photos of Dr. Steyermark's in the Archives of the Missouri Botanical Garden.

GAR: What prompted you to do South American research while you were doing your Missouri work?

JAS: The reason I got tied up with Venezuela is because during World War II, I was sent down to South America. First Ecuador for nearly a year, and then to Venezuela, to make an inventory of the quinine resources of those countries, for the cinchona bark which has been used for treating malaria. We were needing quinine at that time because the Japanese had taken over critical places like Java, where all the quinine was grown, and the soldiers in the South Pacific were dying from malaria. So the United States government sent botanists to look for sources of new quinine where it is native in the Andes of South America. From Bolivia through Ecuador, to Colombia and Venezuela, it grows at the higher altitudes. We had to go out and find the trees and make samples of the bark, dry the bark - a couple of kilos - and send them back for examination, to see how much quinine there was in the sample. If there was enough, they planned to go down and exploit those areas and strip

the bark from the trees. But the war ended before it got very far, so nothing happened. They made a survey and they published on it.

GAR: Except that you were able to do some research on the side?

JAS: I was sent down to Ecuador and I was there for ten months and then they transferred me to Venezuela. I had read about the Lost World, of course, and the expeditions there to Roraima, Angel Falls, and Duida, and I had always wanted to go down to that part of Venezuela. A couple of the places where I had to look for quinine were in that part of the Lost World. I was there in 1943, all of 1944, and up to the middle of 1945, and I carried on much exploration during that period. I had the Field Museum (of Natural History, Chicago) extend my stay. . .let me stay longer so that I could do more exploring. So when I came back in 1945 I had to identify all these plants. There were about eight thousand numbers. I found so many wonderful new things - new species - that I said, "That's the country for me to go to!" So, I was sent on my first expedition, in 1953, to Chimanta Tepui (Tepui is the Indian word for the mountains). That is one of the big sandstone table-topped mountains isolated in the Lost World. I was there five months trying to get around and doing lots of climbing. Then in 1955, I went back again to the same mountain to explore more of it with another botanist, Dr. Wurdack, of the New York Botanical Garden. For three months [we] had Indians carry all the stuff up the Mountain. It took us one month to get up and a long time to get down.

GAR: Pre-helicopter days!

JAS: Yes. So I walked many miles.

GAR: You didn't do any sheer-sided climbing in those days, because you couldn't get up there?

JAS: We had to find a way to get up - in cracks around the bluffs. This kindled my desire to continue to explore that country. And so when an opportunity came up in 1958, I said, "Yes, I'd sure like to go," and I left the museum in 1959. I had [a] two year grant from the National Science Foundation to finish the Flora of Missouri. I wrote it up in two years, after getting all the data together, visiting all the state universities and junior colleges . . .

GAR: For your distribution maps?

JAS: Yes. So that's what happened then.

GAR: What years did that cover?

JAS: That was 1958 and 1959. I went down to Venezuela at the end of 1959 and never returned . . . never gotten out until last year [1984].

GAR: So, you wrote the text for this [Flora of Missouri] down there?

JAS: No, I wrote the text at the Field Museum, when I was still connected in Chicago. [That is when] I wrote the text for this [the Flora of Missouri].

GAR: [You did that] while you were on your National Science Foundation grant?

JAS: Yes, I received a grant from the National Science Foundation to complete the book. It was published by Iowa [State University Press] because Missouri [publishers] didn't have any money. Neither did the Missouri Botanical Garden nor the University of Missouri [Press]. I offered it to them at the time, but they couldn't [take it], they were too poor. So the people at Iowa grabbed it. That's why it was published by the Iowa State [University] Press.

(After a pause during which we reviewed more prints)

JAS: I worked for the Forest Service, you know? Back in 1936 and 1937. You remember that?
GAR: I remember.
JAS: I made surveys for them, and started an herbarium. I studied turkey and deer feeds, and made ecological studies of the Ozark forests.
GAR: I didn't know that you were studying turkey and deer feeds.
JAS: I went around following turkeys - wild turkeys- and deer and collected the plants that they eating.

(Again, after a pause in which we viewed more prints)

GAR: What led you to publish the Spring Flora [of Missouri]?
JAS: Well (laughs) . . . you see I had worked in Missouri with Mr. [Ernest J.] Palmer publishing the [Annotated] Catalog of the Flowering Plants of Missouri. That came out in the 1935 Annals of the Missouri Botanical Garden. So I continued and I thought it would be a good idea to have a Spring Flora of Missouri. Fassett brought one out of the Spring Flora of Wisconsin. In order to make it more easily digested - to identify plants - I conceived the idea of illustrating the keys. A picture always goes a long way in describing. So I was one of the first to introduce that idea. And so the Missouri Botanical Garden published the Spring Flora [of Missouri].
GAR: And then it got picked up by some publisher, the Lucas Brothers in Columbia?
JAS: (Not aware of my questioning) Oh, yes.
GAR: I've got a copy published by them, in 1959.[1]
JAS: It's 1941 when it came out?[2]
GAR: And they reprinted it, and it's still available somewhere.
JAS: Really? I didn't know. So then, of course, I wanted to get a flora that would cover all the state, at all the seasons. That is why I continued working on the Flora of Missouri after the Spring Flora [of Missouri]. I was accumulating records on trips all the time. See, I came to the Field Museum in 1937 and I took all my spare time on vacations and days off - holidays and so forth - to go down to Missouri.
GAR: I've heard mixed stories on how the Field Museum viewed your [Missouri] research.
JAS: (Quickly responds) Ah, they didn't like it! They weren't really much in favor because, you see, they had brought me up there to work on tropical plants with Paul Standley, who was in charge. I was working on the Flora of Guatemala with him at the time. And I went on two expeditions to Guatemala in 1938 and 1939, and then again in 1941 to 1942. And so . . . I was mixing up my tropical work with Missouri work and I had to ask the Museum all the time for time off to go down to Missouri. So, you did hear it right, they didn't [like my Missouri work].
GAR: So it was a labor of love?
JAS: Yes. I simply wanted to make trips to Missouri in order to obtain more records from that state. And I had in mind to do this Flora of Missouri. Well, then Palmer died and I dedicated the Flora of Missouri to him.

(After another pause to view prints)

JAS: So what did you hear about this business of the Field Museum not approving [of my Missouri research]?

GAR: I heard that it was one factor in your deciding to leave.

JAS: Well, they weren't much in sympathy with my work in Missouri. That was my own choice, of course.

GAR: Were you curator or assistant curator?

JAS: I went from assistant curator when I first started in 1937 to associate curator and finally to curator. I was curator for eight years. When Mr. Standley left, I took over curatorship - from 1950 to 1958. And then I got the Venezuelan offer. I had offers from other countries, like Ecuador, Colombia, and Brazil. But since I had already been in Venezuela and found it so fascinating, I took that job. I had a chance to go to Brazil - São Paulo - to work. They offered me the opportunity but I turned it down. And Colombia also. Ecuador . . . I was in Ecuador first where I had trained a botanist there during the quinine program. He wanted me to work with him on the Flora of Ecuador. But I was already involved with the Flora of Venezuela.

(Later Dr. Steyermark recalled details of his first jobs)

JAS: I was research assistant here (Washington University, St. Louis) for Dr. Woodson for two months. [Then I] went down to Panama on my first expedition to the tropics in December, 1934 to February, 1935. And when I came back, that was in February, 1935, there were no real professional jobs of my type available. People during the depression then were being let out instead of being taken in. So, I had to teach senior high school here in University City (near St. Louis, Missouri). But, I had to go to night school to take education [courses] (laughs).

GAR: [A] Ph.D., but you had to go to night school!

JAS: Yes, to take education and psychology, required for a teaching certificate. So, I got a job here at University City Senior High School in 1935. And during the summers, I explored Missouri. In the summers of 1936 and 1937, I worked in the Missouri National Forests.

GAR: (Recalling a photo dated 1937) You say that truck [you were using for research at the time] cost you eighty-eight dollars?

JAS: Yes. You see . . . Truck? I like your nerve. It was a second hand Chevrolet sedan.

GAR: Oh, it was? It looked like a truck - rounded sides.

JAS: What were you looking at?

GAR: It looked like today's van [style], but it had rounded sides and it was dark - but then all vehicles were black.

JAS: What picture was that?

GAR: I don't remember where it was taken, but it was in the 1930s.

JAS: Well, um . . .

GAR: It had back doors that opened up.

JAS: (Dropping the debate over truck versus sedan) In my early years I was a nature counselor at a boy's camp for three summers, in 1928, 1929, and 1930. I'd been collecting plants in Maine, New Hampshire, Missouri, and

Illinois. I don't know how many thousands - a few thousand numbers I collected. So I sold them to the Missouri Botanical Garden, when Dr. Greenman was curator, and received eighty-eight dollars. And with that I bought a second hand Chevrolet. That was the first car I owned - 1934. That's quite a story about that car.

GAR: Was that a pretty good price for your specimens?

JAS: (Laughs) I guess so.

(Early in our conversation, Dr. Steyermark made a comment especially fitting as a summary)

JAS: I had a lot of fun [botanizing Missouri], I'll say that. I enjoyed what I was doing. [It was] just like a treasure hunt when I was out looking for plants.

Dr. Steyermark is presently the world's most prolific living plant collector. He has collected over 138,000 numbers (indicating individual specimens without counting duplicates of the same) during his lifetime and is being written up in the Guiness World Record Book. Approximately 50,000 of these were collected during his research for the Flora of Missouri. Dr. Steyermark recently returned to his home town of St. Louis after 25 years in Caracas, Venezuela, where he worked on the native flora. He is presently on the staff of the Missouri Botanical Garden, where he continues his study of the Venezuelan flora. He is preparing a monumental work on the Flora of the Lost World of Venezuela, to be published in a few years.

Dr. Steyermark's late wife, Cora, authored a book on his botanical explorations in Missouri. It is entitled Behind the Scenes and was published posthumously by the Missouri Botanical Garden. It is presently available at their bookshop.

1 Actual date was 1964. (GAR).

2 Copyright date was 1940.

Julian Steyermark on a Missouri collecting trip in the 1930s.

THE CONTINUED EXPANSION OF GALIUM PEDEMONTANUM (RUBIACEAE) IN MISSOURI

David Castaner[1]

Sanders (1976) reported Galium pedemontanum (C. A. L. Bellardi) Allioni (no common name) to be "currently increasing its geographical distribution on this continent." It was first found in Kentucky in 1933. Although no actual path is determinable, Sanders speculated these possible migration routes: Kentucky (1933), to western West Virginia (1941), central Tennessee (1952), eastern Illinois (1955), southeastern Missouri (1954), and southwestern Arkansas (1951). From western West Virginia to southwestern Ohio (1960), and western Virginia (1972).

In Missouri, the species was reported from Iron County in 1954, and from Christian and Taney counties (in 1972). Sanders (1976) predicted that it would soon widen its occurrence to include most of its potential suitable habitats: eastern Missouri north of the Missouri River, and most of southern Missouri except for the Unglaciated Osage Plains area in west-central Missouri. It seems to be doing just that.

Galium pedemontanum is here reported from the following additional Missouri counties: Johnson (1970), Pettis (1983), Newton (1983), Camden (1983), Howell (1985), and Douglas (1985). It has also been reported from Shannon County (Jay Raveill, personal communication). It has been found in a cemetery, at the State Fairgrounds, in campgrounds, in an open disturbed field, and along the shoulders of several state routes. Since these types of habitats are common, the species has a huge expansion potential. With familiarity, it is relatively easy to identify in the field. Its sprawling matted appearance somewhat resembles the appearance of G. aparine L., but G. aparine usually has six long leaves per node; G. pedemontanum has four short leaves per node. The following description will serve to distinguish this species.

Sanders characterized Galium pedemontanum as being matted, with terminal erect growth, leaves in whorls of four, with axillary inflorescences shorter than the subtending leaves, with in-curved peduncles. Specifically, it is a fairly small annual that has retrorsely hispid or villous stems, short leaves only 3-10 mm long, with small yellowish or whitish flowers in groups of one to four, and smooth fruit. Missouri specimens have varying degrees of villousness and hispidness (some specimens engage themselves in an inseparable tangle of stems that seemingly grab every article of clothing nearby, resulting in a mass adhesion and, by the way, a shower of seeds). Although Fernald (1950), in Gray's Manual, described the flowers as yellow, in our specimens, all dried (!), the flowers are white in appearance (Figure 1).

In Flora of Missouri (Steyermark, 1963), G. pedemontanum will key to G. obtusum Bigel. The following insertion will allow G. pedemontanum to be keyed out in the Flora of Missouri. See Page 1388.

f. Leaves in whorls (circles) of four . . . . . (g)
  g. Corolla dull purple; leaves acutely pointed; 2-5 cm long . . . . . G. arkansanum
  g. Corolla whitish or yellowish; leaves obtuse (blunt) at the tip, 0.8-3 cm long . . . . . gg
    gg. Leaves glabrous or slightly scabrous on the margins; stems smooth . . . . . G. obtusum
    gg. Leaves villous; stems villous and retrorsely hispid; leaves 3-10 mm long . . . . . G. pedemontanum

Voucher specimens for the new reports are deposited in WARM (herbarium of Central Missouri State University). These are Johnson County, Francis 141, 8 May 1970; Pettis County, Castaner 7527, 24 May 1983; Newton County, Castaner 7453, 25 May 1983; Camden County, Castaner 7763, 23 June 1983; Howell County, Castaner 8383, 21 May 1985; and Douglas County, Castaner 8449, 22 May 1985.

Duplicates of Francis 141 (Johnson County) and Castaner 7763 (Camden County) have been examined by Cheryl A. Lawson (a current researcher in the genus) and have been verified.

LITERATURE CITED

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Sanders. R. W. 1976. Distribution history and probable ultimate range of Galium pedemontanum (Rubiaceae) in North America. Castanea 41: 73-80.

Steyermark, J. A. 1963. Flora of Missouri. Iowa State Univ. Press, Ames, Iowa. lxxxii + 1728 pp.

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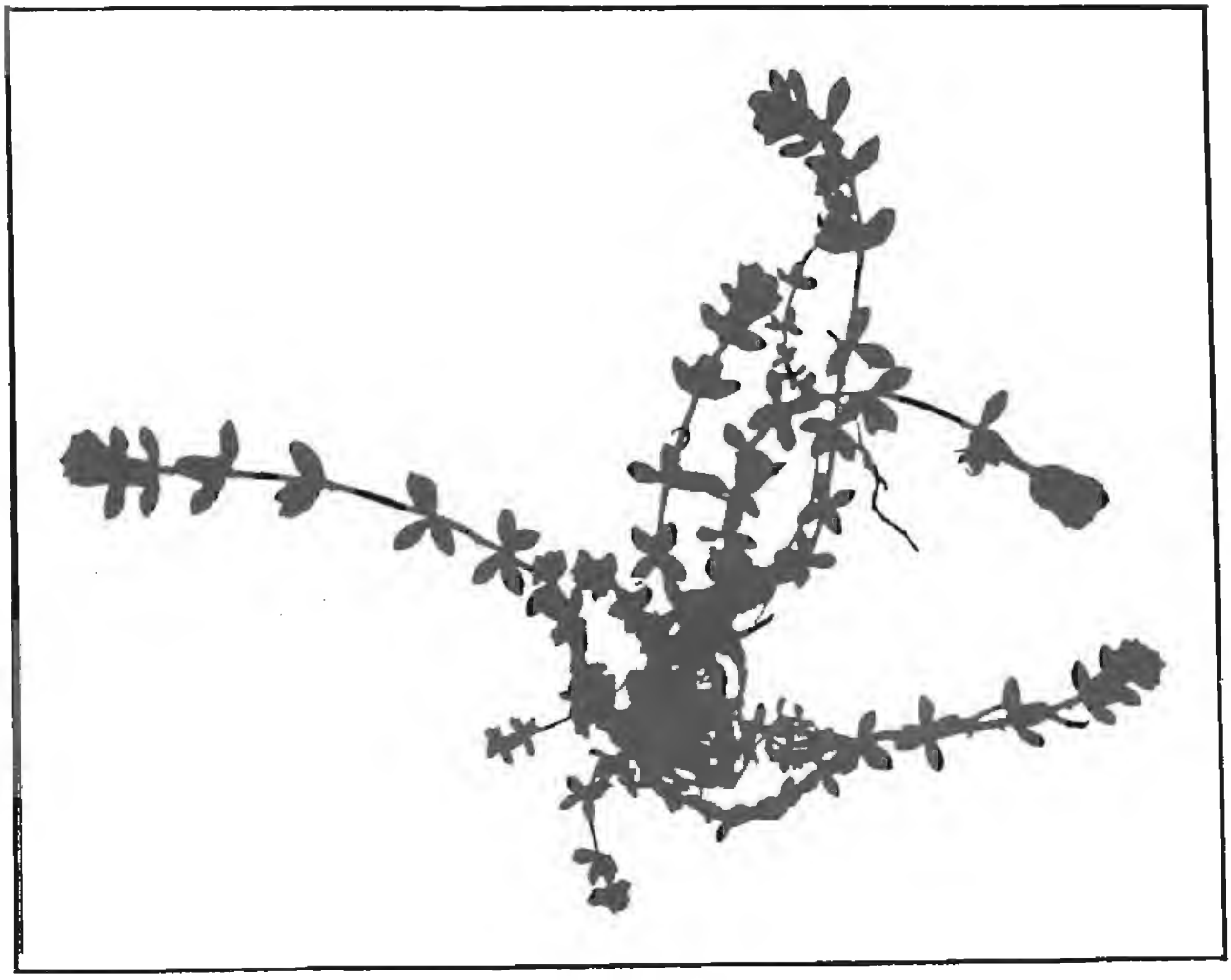

Figure 1. Xerograph of Galium pedemontanum. Castaner 7352 (WARM).

LONICERA MAACKII, ESCAPED FROM CULTIVATION IN MISSOURI

Paul L. Redfearn, Jr.[1]

Members of the genus Lonicera are difficult to keep penned. In addition to Japanese Honeysuckle (Lonicera japonica Thunb. var. japonica), L. morrowii Gray, and L. sempervirens L. var. sempervirens, Lonicera maackii (Rupr.) Maxim. may now be added to the list of adventive honeysuckles in Missouri. This species was found growing in a second growth oak-hickory forest on an east-facing slope just below Lake Springfield Dam southeast of Springfield in Greene County (Redfearn 33570, 33641, SMS). It was a small tree, about eight feet tall. This species has also been reported as an adventive in Illinois (Mohlenbrock & Ladd, 1978) and in Arkansas (Smith, 1978).

In the Flora of Missouri (Steyermark, 1963), L. maackii may be separated from other erect shrubby honeysuckles by flower pedicels that are distinctly shorter than the petioles of the subtending leaves.

LITERATURE CITED

Mohlenbrock, R. H. and D. M. Ladd. 1968. Distribution of Illinois vascular plants. SIU Press, Carbondale. 494 pp.

Smith, E. R. 1978. An atlas and annotated list of the vascular plants of Arkansas. Department of Botany and Microbiology, University of Arkansas, Fayetteville. 591 pp.

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COMMENTS ON FAMILY SYNOPSIS FOR THE MISSOURI FLORA, I

Julian A. Steyermark[1]

Changes in the names of plants and their rank as to family, genus, and species are inevitable as more detailed studies are made by investigators. The tendency is to follow the most recent publications and to keep up with these changes. Although no one is compelled to do so, we are prone to accept what is "considered to be the latest word on the subject," unless there is evidence to the contrary.

The opinion, as expressed by Taylor and Turner (1985), that "the rank of forms is not useful" and the fact that "Kartesz and Kartesz do not include taxa under the rank of variety or subspecies" is quite another matter, and smacks too much of an attitude of finality, arbitrariness, and dictatorship. The wisdom of not recognizing forms must be seriously questioned. To submerge or suppress within the description of a given species one of its unusual features, be it flower or fruit color, fruit shape, or whatever other noteworthy differences, is an unfortunate omission. If Taylor and Turner's suggestion is followed, the conclusion that could be reached is that all forms could be eliminated at "one fell swoop."

To the defense of continuing forms, it must be emphasized that they serve a useful purpose: by giving them a name status, we place them in focus, on a botanical pedestal, so to speak, as something exceptional, something unusual not ordinarily associated with the species. The term form calls attention to what might be otherwise passed over in a description, and therefore designation as a form serves to indicate some special feature, something out of the ordinary.

Let us consider a few examples. The White Redbud (Cercis canadensis f. alba) is easily recognizable as completely at color variance from the usual rose-purple or lavender-rose colored typical C. canadensis. By giving it the rank of a form, we do not "clutter up the literature" as one proponent who wishes to eliminate forms would say, but rather we call attention officially to a color variation.

Another example is the Pink Dogwood (Cornus florida f. rubra). This is rarely encountered in a wild state in Missouri, but has become very popular in cultivation. Having a formal name serves the purpose of its being available as such under that name by commercial growers and customers as Pink Dogwood or f. rubra.

Rarely do we encounter a Persimmon (Diospyros virginiana) with the fruit dark or blue purple or plum blue in color (f. atra), or a Walnut (Juglans nigra) with an ellipsoid shaped fruit longer than broad (f. oblonga). Yet

such oddities have been furnished with special names in the rank of form in order to isolate them from the usual variations of salmon-orange or globose shaped fruits. We should also remember that previous investigators, including many keen and discriminating observers and thinkers, have chosen to single out such variations as meriting special formal names.

In a botanical democracy we are free to use the rank of form for any species which merits recognition because of an unusual divergence in color, shape, size, pubescence, or any other outstanding character, be it ever so small, but yet of such noteworthy distinction. It would certainly be unwise for our botanical science to ignore these interesting variations, which we term forms, and, at the suggestion of Taylor and Turner, or other authors, to eliminate them completely by sublimating them within the context of a general description. Our taxonomy has not yet reached a mathematical exactitude where we can automatically know the boundaries between the various ranks and subdivisions of a species. Until then, we are surely free to follow our particular judgments and concepts.

LITERATURE CITED

Taylor, Mary S. and J. Turner. 1985. Family Synopsis of the Missouri Flora, 1. Missouriensis 6(2) 28-34.

[1] Herbarium, Missouri Botanical Garden, P. O. Box 299, St. Louis, Missouri 63166-0299

REQUEST FOR MATERIAL

The Missouri Botanical Garden hopes to increase its holdings of native Missouri Viburnum and Hickories in its living collection, and would appreciate receiving any material that Missouri Native Plant Society members might be able to contribute. Seeds should be accompanied by a pressed voucher specimen and complete collection data. If you think you might be able to send some material, please let George Rogers know in advance, so that he can concentrate his own field work in areas in which MONPS members are not working. Seeds, vouchers, and collection information should also be sent to: Dr. George Rogers, Horticultural Taxonomist, Missouri Botanical Garden, P. O. Box 299, St. Louis, MO 63166-0299.

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Equisetum arvense	0010	Cape Girardeau	10/05/63	Donald R. Farrar 1052	SEMO
Equisetum laevigatum	0012	Cape Girardeau	13/07/67	Lucker 81	SEMO
Equisetum hyemale	0013	Cape Girardeau	23/04/62	Donald Calwell	SEMO
Ophioglossum vulgatum var. pseudopodum	0016	Cape Girardeau	07/04/74	Dan Green 45	SEMO
Ophioglossum vulgatum var. pycnostichum	0016	Cape Girardeau	03/05/74	Dan Green	SEMO
Ophioglossum engelmanni	0017	Cape Girardeau	04/04/76	Ohmart 960	SEMO
Pteridium aquilinum var. pseudocaudatum	0026	Cape Girardeau	21/04/76	Ohmart 877	SEMO
Dryopteris marginalis	0059	Cape Girardeau	30/04/75	Mike Burnett 48	SEMO
Typha latifolia f. ambigua	69	Cape Girardeau	13/06/56	Liz Renner 14	SEMO
Typha augustifolia	70	Cape Girardeau	12/07/76	T.E. Brooks	SEMO
Typha glauca	0071	Cape Girardeau	23/06/74	Dan Green	SEMO
Potamogeton diversifolius	0079	Cape Girardeau	11/06/76	Ohmart 1033	SEMO
Najas guadalupensis	0089	Cape Girardeau	11/06/76	Ohmart 1034	SEMO
Bromus pubescens	0107	Cape Girardeau	08/06/76	Ohmart 1009	SEMO
Bromus racemosus	0111	Cape Girardeau	16/06/69	Bufur 18	SEMO
Poa compressa	0133	Cape Girardeau	17/05/69	Lawless	SEMO
Eragrostis hypnoides	0143	Cape Girardeau	28/08/76	Ohmart 1476	SEMO
Eragrostis pectinacea	0147	Cape Girardeau	28/08/76	Ohmart 1478	SEMO
Dactylis glomerata	0164	Cape Girardeau	11/05/69	Roberts 51	SEMO
Arundo donax	0165	Cape Girardeau	27/10/70	T.E. Brooks 6037	SEMO
Secale cereale	0179	Cape Girardeau	15/05/69	Schoenwalder 71	SEMO
Elymus villosus f. villosus	0181	Cape Girardeau	16/06/69	Jim Lutz 32	SEMO
Elymus canadensis f. canadensis	0183	Cape Girardeau	13/07/67	Luker 83	SEMO

Contributors for this issue: Otto Ohmart, Department of Biology, Southeast Missouri State University, Cape Girardeau, Missouri 63701, all specimens deposited in SEMO Herbarium; Paul L. Redfearn, Jr., Department of Biology, Southwest Missouri State University, Springfield, Missouri 65804-0095, all specimens deposited in SMS Herbarium.

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Hordeum jubatum var. jubatum	0188	Cape Girardeau	02/06/78	Ohmart 2083	SEMO
Sphenopholis nitida	0197	Cape Girardeau	19/04/73	T.E. Brooks	SEMO
Holcus lanatus	0204	Cape Girardeau	01/06/75	W.R. Eddleman	SEMO
Agrostis hyemalis	0215	Cape Girardeau	01/06/75	W.R. Eddleman	SEMO
Agrostis perennans var. aestivalis	0216	Cape Girardeau	10/09/76	Ohmart and Thompson 1540	SEMO
Cinna arundunaceae var. inexpansa	0217	Cape Girardeau	15/07/72	T.E. Brooks 6677	SEMO
Muhlenbergia racemosa	0224	Cape Girardeau	12/10/77	Ohmart 2039	SEMO
Leptochloa filiformis var. attenuata	0255	Cape Girardeau	20/08/75	W.R. Eddleman	SEMO
Cynodon dactylon	0257	Cape Girardeau	05/05/69	Besand 54	SEMO
Phalaris arundinacea	0271	Cape Girardeau	11/06/76	Ohmart 1039	SEMO
Paspalum fluitans	0288	Cape Girardeau	28/08.76	Ohmart 1463	SEMO
Paspalum floridanum var. glabratum	0295	Cape Girardeau	22/09/76	Ohmart and Thompson 1614	SEMO
Panicum linearifolium var. linearifolium	0298	Cape Girardeau	07/06/78	Ohmart 2128	SEMO
Panicum lanuginosum var. fasciculum	0308	Cape Girardeau	07/06/78	Ohmart 2127	SEMO
Panicum oligosanthes var. helleri	0315	Cape Girardeau	03/08/76	Ohmart and Thompson 1326	SEMO
Panicum latifolium	0321	Cape Girardeau	08/06/76	Ohmart 1007	SEMO
Echinochloa crusgalli var. crusgalli f. longiseta	0338	Cape Girardeau	01/07/78	Ohmart 2142	SEMO
Echinochloa muricata var. ludoviciana	0339	Cape Girardeau	28/08/76	Ohmart 1449	SEMO
Echinochloa muricata var. microstachys	0339	Cape Girardeau	02/08/76	Ohmart 1314	SEMO
Setaria geniculata	0341	Cape Girardeau	29/09/76	Ohmart and Thompson 1621	SEMO
Setaria viridis	0343	Cape Girardeau	26/06/69	Dufer 64	SEMO
Setaria faberii	0344	Cape Girardeau	09/07/76	Ohmart 1198	SEMO
Cenchrus longispinus	0346	Cape Girardeau	08/10/70	T.E. Brooks 6706	SEMO
Erianthus alopecuroides	0349	Cape Girardeau	27/10/76	Ohmart and Thompson 1670	SEMO
Andropogon ternarius	0354	Cape Girardeau	06/11/77	Ohmart 2043	SEMO

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Cyperus flavescens var. poaeformis	0364	Cape Girardeau	30/08/73	T.E. Brooks 7238	SEMO
Cyperus aristatus	0368	Cape Girardeau	28/07/72	T.E. Brooks 6746	SEMO
Cyperus acuminatus	0371	Cape Girardeau	20/06/74	T.E. Brooks	SEMO
Cyperus ferruginescens	0375	Cape Girardeau	28/07/72	T.E. Brooks 6742	SEMO
Cyperus esculentus var. esculentus f. angustispicatus	0378	Cape Girardeau	18/07/67	D. Hart 71	SEMO
Cyperus strigosus var. strigosus	0379	Cape Girardeau	30/08/73	T.E. Brooks 7240	SEMO
Eleocharis obtusa var. jejuna	0396	Cape Girardeau	24/09/73	T.E. Brooks 7326	SEMO
Eleocharis macrostachya	0399	Cape Girardeau	19/06/73	T.E. Brooks 7090	SEMO
Fimbristylis autumnalis	0407	Cape Girardeau	24/09/73	T.E. Brooks 7328	SEMO
Scirpus atrovirens var. georgianus	0421	Cape Girardeau	29/06/76	Ohwart and Thompson 1139	SEMO
Hemicarpha micranthra	0429	Cape Girardeau	21/09/73	T.E. Brooks 7248	SEMO
Carex retroflexa var. retroflexa	0446	Reynolds	05/20/76	Nelson 1221	SMS
Carex retroflexa var. retroflexa	0446	Greene	05/06/76	Stalker 435	SMS
Carex retroflexa var. retroflexa	0446	St. Clair	09/02/82	Solecki 1003	SMS
Carex rosea	0448	Dent	05/25/75	Maupin 1062	SMS
Carex rosea	0448	Ozark	05/16/69	Redfearn 14625	SMS
Carex cephalophora var. cephalophora	0449	LaClede	05/31/78	Pyrah 5267	SMS
Carex muhlenbergii	0452	Cape Girardeau	02/05/64	Paula J. Johnson 7	SEMO
Carex muhlenbergii var. muhlenbergii	0452	Texas	06/27/69	Pyrah 181	SMS
Carex muhlenbergii var.enervis	0452	Barry	08/10/74	Sheldon	SMS
Carex gravida var. gravida f. gravida	0453	Dent	04/28/74	Maupin 457	SMS
Carex gravida var. gravida f. gravida	0453	Lawrence	05/08/53	Palmer 53459	SMS
Carex gravida var. gravida f. gravida	0453	Cole	06/02/78	Maupin 376	SMS
Carex gravida var. gravida f. gravida	0453	LaClede	05/31/78	Pyrah 5317	SMS

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Carex scoparia var. scoparia f. scoparia	0467	Cape Girardeau	29/06/76	Ohmart and Thompson 1138	SEMO
Carex digitalis	0497	Cape Girardeau	18/04/67	Porchey 35	SEMO
Carex granularis var. haleana	0502	Cape Girardeau	20/05/69	Furry 54	SEMO
Carex emoryi	0528	Cape Girardeau	01/05/69	Ann Overall 1	SEMO
Carex lurida	0534	Cape Girardeau	29/06/76	Ohmart and Thompson 1144	SEMO
Arisaema atrorubens f. viride	0551	Cape Girardeau	02/05/64	Paula J. Johnson 3	SEMO
Arisaema atrorubens f. zebrinum	0551	Cape Girardeau	18/04/69	Richard Rowlett 1	SEMO
Arisaema atrorubens f. viride	0551	Barry	05/03/69	Redfearn 26035	SMS
Arisaema atrorubens f. viride	0551	Dent	05/14/60	Whaley	SMS
Arisaema atrorubens f. viride	0551	Douglas	04/25/64	Redfearn 12139	SMS
Arisaema atrorubens f. viride	0551	Greene	04/14/58	Redfearn 3442	SMS
Arisaema atrorubens f. viride	0551	Hickory	04/25/64	Shook	SMS
Arisaema atrorubens f. viride	0551	Ste. Genevieve	05/08/64	Redfearn	SMS
Arisaema atrorubens f. viride	0551	Stone	05/09/67	Redfearn 21287	SMS
Arisaema atrorubens f. zebrinum	0551	Barry	05/12/79	Hornberger 141	SMS
Arisaema atrorubens f. zebrinum	0551	Dent	04/28/74	Maupin 488	SMS
Arisaema atrorubens f. zebrinum	0551	Douglas	04/25/64	Redfearn 14385	SMS
Arisaema atrorubens f. zebrinum	0551	Greene	04/25/33	Coffman	SMS
Arisaema atrorubens f. zebrinum	0551	Howell	04/19/80	Redfearn 32203	SMS
Arisaema atrorubens f. zebrinum	0551	St. Francois	04/10/77	Blackwell 42	SMS
Arisaema atrorubens f. zebrinum	0551	Shannon	04/29/61	Redfearn 8098	SMS
Arisaema dracontium	0552	Polk	05/08/63	Eggers 524	SMS
Arisaema dracontium	0552	Shannon	05/14/61	Redfearn 8146	SMS
Acorus calamus	0554	Lawrence	07/09/79	Pyrah 4049	SMS
Spirodelia polyrhiza	0555	Cape Girardeau	21/05/64	Frances Ward 113	SEMO

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Spirodela polyrhiza	0555	Barry	07/24/79	Hornberger 618	SMS
Spirodela polyrhiza	0555	Reynolds	07/08/75	Breyfogle 343	SMS
Spirodela polyrhiza	0555	Stoddard	05/20/72	Weber	SMS
Lemna perpusilla	0560	Vernon	06/07/60	Redfearn 5878	SMS
Lemna valdiviana	0561	Carter	05/29/60	Redfearn 5743	SMS
Tradescantia ozarkana	0568	Greene	05/09/74	Redfearn 31973	SMS
Tradescantia virginiana f. virginiana	0570	Cape Girardeau	02/05/64	Paula J. Johnson 117	SEMO
Tradescantia virginiana f. virginiana	0570	Barry	05/21/80	Hornberger 958	SMS
Tradescantia virginiana f. virginiana	0570	McDonald	04/30/66	Redfearn 18500	SMS
Tradescantia virginiana f. virginiana	0570	Newton	05/11/58	Paden	SMS
Tradescantia virginiana f. virginiana	0570	Reynolds	05/10/75	Nelson 42	SMS
Tradescantia tharpii	0571	Ozark	05/08/65	Redfearn 17033	SMS
Commelina communis	0575	Gasconade	10/12/74	Niewald 19	SMS
Commelina communis	0575	Lawrence	11/02/56	Palmer 64705	SMS
Commelina communis	0575	Shannon	07/11/69	Redfearn 347	SMS
Commelina erecta var. angustifolia f. angustifolia	0579	Cape Girardeau	13/07/67	Jones 27	SEMO
Commelina erecta var. erecta f. erecta	0579	Barry	07/22/68	Redfearn 24532	SMS
Commelina erecta var. erecta f. erecta	0579	Dent	09/21/74	Maupin 916	SMS
Commelina erecta var. erecta f. erecta	0579	Greene	09/12/74	Key 161	SMS
Commelina erecta var. erecta f. erecta	0579	Phelps	05/30/77	Lewis	SMS
Commelina erecta var. erecta f. erecta	0579	Shannon	06/26/70	Witherspoon 347	SMS
Commelina erecta var. erecta f. intercursa	0579	Shannon	06/24/70	Witherspoon 303	SMS
Juncus effusus var. solutus	0585	Cole	06/21/79	Maupin 379	SMS
Juncus secundus	0589	Cape Girardeau	13/07/76	Ohmart and Thompson 1248	SEMO
Juncus secundus	0589	Wright	06/09/78	Pyrah 5439	SMS

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Juncus tenuis f. tenuis	0590	Greene	06/13/60	Redfearn 6066	SMS
Juncus tenuis f. tenuis	0590	LaClede	05/13/60	Pyrah 5283	SMS
Juncus biflorus	0594	Cape Girardeau	27/06/67	Fish 67	SEMO
Juncus scirpoides	0598	Cape Girardeau	09/06/52	Louis W. Fields 31	SEMO
Amianthum muscaetoxicum	0608	Barry	06/21/79	Hornberger 350	SMS
Allium tricoccum	0616	Cape Girardeau	12/07/76	Baker 34	SEMO
Allium sativum	0617	Dallas	04/06/82	Ladd 6153	SMS
Allium sativum	0617	Greene	05/28/79	Key 2410	SMS
Allium vineale f. compactum	0618	Cape Girardeau	07/06/78	Ohmart 2108	SEMO
Allium vineale f. vineale	0618	Barry	06/05/78	Timme 177	SMS
Allium mutabile	0622	St. Clair	06/06/70	Redfearn	SMS
Lilium michiganense	0627	Polk	06/23/79	Timme 352	SMS
Lilium michiganense	0627	St. Clair	06/26/65	Henderson 65-429	SMS
Lilium michiganense	0627	Henry	06/03/80	Timme 472	SMS
Erythronium americanum	0629	Christian	04/03/61	Pyle 4	SMS
Erythronium americanum	0629	Dent	04/16/75	Maupin 324	SMS
Erythronium americanum	0629	Vernon	05.07/61	Householder	SMS
Erythronium americanum	0629	Wright	04/24/71	Thompson 55	SMS
Erythronium albidum var. mesochoreum	0630	Cape Girardeau	05/04/60	Ron Garrett	SEMO
Erythronium albidum var. mesochoreum	0630	McDonald	04/02/60	Houk 177	SMS
Erythronium albidum var. mesochoreum	0630	Polk	04/12/75	Nelson 3	SMS
Erythronium albidum var. mesochoreum	0630	Christian	03/27/82	Redfearn 32859	SMS
Camassia scilloides	0631	Cape Girardeau	19/04/69	Schoenwalder 26	SEMO
Muscari botryoides	0636	Cape Girardeau	12/04/75	Karen Christian 190	SEMO

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Muscari botryoides	0636	Christian	04/10/60	Merry	SMS
Muscari botryoides	0636	LaClede	06/02/78	Pyrah 5422	SMS
Muscari botryoides	0636	Marion	05/06/62	Secker 22	SMS
Muscari botryoides	0636	Shannon	05/12/62	Klopf	SMS
Smilacina racemosa var. cylindrata	0640	Barry	05/12/79	Hornberger 124	SMS
Polygonatum biflorum	642	Cape Girardeau	20/05/58	Ray Reiker 32	SEMO
Polygonatum biflorum f. biflorum	642	Douglas	08/14/69	Redfearn 26384	SMS
Polygontum biflorum f. biflorum	642	Greene	05/28/79	Key 2371	SMS
Polygontum biflorum f. biflorum	642	Shannon	05/18/63	Eggers 664	SMS
Polygontum biflorum f. biflorum	642	Stoddard	04/17/63	Criger	SMS
Polygontum biflorum f. biflorum	642	Taney	05/16/65	Utterback	SMS
Polygontum biflorum f. biflorum	642	Texas	05/27/78	Pyrah 5223	SMS
Polygontum canliculatum	0643	Dent	05/29/74	Maupin 528	SMS
Trillium sessile f. viridiflorum	645	Barry	04/20/70	Hornberger 41	SMS
Trillium viride var. viride	646	Washington	05/16/60	Whaley	SMS
Trillium viride var. viride	646	Wayne	05/09/64\	Redfearn 14496	SMS
Trillium recurvatum f. shayi	647	Cape Girardeau	24/04/65	Arlon Meyer, Jr. 1066	SEMO
Trillium recurvatum var. recurvatum	647	Ozark	05/08/65	Redfearn 17035	SMS
Smilax pulverulenta	651	Ozark	05/16/64	Redfearn 14634	SMS
Smilax ecirrhata	653	Cape Girardeau	07/05/60	Rhodes 32	SEMO
Smilax glauca var. glauca	654	LaClede	06/02/78	Pyrah 5410	SMS
Smilax bona-nox var. bona-nox	656	Stone	09/28/74	Nelson 517	SMS
Smilax bona-nox var. bona-nox	656	Taney	07/13/77	Hicks 647	SMS
Smilax bona-nox var. bona-nox	656	Texas	06/29/83	Redfearn 188	SMS
Smilax bona-nox var. hederaefolia	656	Dent	09/14/69	Redfearn 1270	SMS

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Smilax bona-nox var. hederaefolia	656	Shannon	09/25/76	Pope	SMS
Narcissus pseudo-narcissus	0660	Cape Girardeau	02/04/64	F. Ward 1	SEMO
Hypoxis hirsuta	0663	Cape Girardeau	29/04/77	Ohmart and Thompson 1687	SEMO
Hypoxis hirsuta	0663	Dade	05/02/82	Redfearn 32833	SMS
Iris virginica var. shrevei	0670	Cape Girardeau	21/05/77	Dan Green	SEMO
Belamcanda chinensis	676	Barry	07/18/79	Hornberger 579	SMS
Belamcanda chinensis	676	Howell	08/04/61	Redfearn 8631	SMS
Sisyrinchium albidum	677	Texas	05/26/78	Pyrah 5109	SMS
Sisyrinchium campestre	678	Cape Girardeau	10/05/70	Norman Driske 23	SEMO
Sisyrinchium campestre f. campestre	678	Barry	04/29/60	Houk 234	SMS
Sisyrinchium campestre f. campestre	678	Douglas	04/25/64	Cornwell 21	SMS
Sisyrinchium campestre f. campestre	678	Monroe	95/25/80	Moyer 39	SMS
Sisyrinchium campestre f. campestre	678	Wright	05/17/64	Redfearn 14720	SMS
Sisyrinchium campestre f. kansanum	678	Vernon	05/06/61	Householder	SMS
Sisyrinchium angustifollium (bermundiana)	679	Dent	05/28/74	Maupin 510	SMS
Cypripedium calceolus var. pubescens	682	Cape Girardeau	26/04/78	Susan Wessel- 52	SEMO
Cypripedium calceolus var. parviflorum	682	Webster	05/11/84	Redfearn 33432	SMS
Orchis spectabilis	685	Howell	04/19/71	Redfearn 32211	SMS
Habenaria peramoena	692	Cape Girardeau	13/07/76	Ohmart and Thompson 1255	SEMO
Corallorhiza odontorhiza f. odontorhiza	708	Phelps	11/15/82	Hansman	SMS
Liparis liliifolia f. liliifolia	710	Barry	05/25/80	Timme 423	SMS
Saururus cernuus	714	Dade	06/07/70	Redfearn 26935	SMS
Saururus cernuus	714	Madison	07/28/64	Redfearn 1141	SMS
Saururus cernuus	714	Lawrence	06/19/59	Redfearn 4301	SMS

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Salix nigra	715	Greene	09/22/76	Hilton 311	SMS
Salix alba var. calva	720	Dent	05/10/75	Maupin 1003	SMS
Salix rigida var. rigida f. rigida	722	Cape Girardeau	09/07/76	Ohmart and Thompson 1203	SEMO
Salix rigida var. rigida f. mollis	0722	Cape Girardeau	16/10/51	McCracken and Baudendistel 41	SE MO
Salix humilis var. humilis	725	Jasper	09/12/20	Palmer 19102	SMS
Carya ovata f. fraxinifolia	745	Cape Girardeau	20/04/77	Mary Shelly	SEMO
Maclura pomifera	790	Cape Girardeau	25/09/49	Jennings Mason	SEMO
Humulus japonicus	793	Cape Girardeau	27/09/70	T.E. Brooks 5932	SEMO
Parietaria pensylvanica var. pensylvanica	800	Cape Girardeau	09/07/76	Ohmart 1200	SEMO
Aristolochia tomentosa	0805	Cape Girardeau	27/08/78	Ohmart 2177	SEMO
Rumex maritimus var. furginus	818	Cape Girardeau	01/09/76	Ohmart and Thompson 1485	SEMO
Polygonum erectum	821	Cape Girardeau	13/10/76	Ohmart and Thompson 1660	SEMO
Polygonum pensylvanicum var. laevigatum f. laevigatum	829	Cape Girardeau	01/09/76	Ohmart and Thompson 1488	SEMO
Polygonum lapathifolium var. lapathifolium	830	Cape Girardeau	28/08/76	Ohmart 1452	SEMO
Polygonum hydropiper	832	Cape Girardeau	26/06/76	Ohmart 1114	SEMO
Polygonum persicaria var. persicaria	833	Cape Girardeau	07/07/72	R. Clinard and T.E. Brooks 96	SE MO
Polygonum hydropiperoides var. hydropiperoides f. hydropiperoides	835	Cape Girardeau	13/07/76	Ohmart and Thompson 1249	SEMO
Polygonum convolvulus var. convolvulus	839	Cape Girardeau	15/06/76	Ohmart 1044	SEMO
Polygonum scandens var. cristatum	840	Cape Girardeau	01/09/76	Ohmart and Thompson 1481	SEMO
Fagopyrum sagittatum	842	Cape Girardeau	15/05/65	George T. Roberson	SEMO
Chenopodium album	860	Cape Girardeau	15/05/63	C.M. Lesch 139	SEMO
Amaranthus tamariscinus	0877	Cape Girardeau	03/08/76	Ohmart and Thompson 1325	SEMO
Amaranthus palmeri	0878	Cape Girardeau	3/10/73	Ohmart 1	SEMO

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Amaranthus spinosus	0880	Cape Girardeau	29/07/67	D. Fish 1	SEMO
Amaranthus graecizans	0886	Cape Girardeau	29/9/76	Ohmart and Thompson 1632	SEMO
Froelichia floridana var. campestris	0889	Cape Girardeau	01/07/78	Ohmart 2137	SEMO
Mirabilis nyctaginea	0891	Cape Girardeau	02/05/64	Benno Joa 53	SEMO
Portulacq oleracea	900	Cape Girardeau	24/08/78	Ohmart 2176	SEMO
Portulaca mundularia	903	Christian	07/31/58	Redfearn 3822	SMS
Arenaria serpyllifolia var. serpyllifolia	914	Cape Girardeau	30/05/78	Ohmart 2077	SEMO
Arenaria patula var. robusta	917	Cape Girardeau	05/04/74	D. Green 101	SEMO
Cerastium vulgatum var. vulgatum f. glandulosum	922	Cape Girardeau	08/04/73	Bill Eddleman	SEMO
Cerastium arvense	923	Cape Girardeau	05/04/62	Banaker 1	SEMO
Lychnis alba	933	Cape Girardeau	18/05/58	Rosemary Barker	SEMO
Nelumbo lutea	0956	Cape Girardeau	07/07/67	Buchheit 34	SEMO
Ranunculus harveyi	0984	Cape Girardeau	11/04/67	Gill 21	SEMO
Ranunculus harveyi f. harveyi	0984	Douglas	04/16/66	Redfearn 18929	SMS
Ranunculus harveyi f. harveyi	0984	Marion	04/06/62	Secker 25c	SMS
Ranunculus harveyi f. harveyi	0984	Ste. Genevieve	05/08/64	Redfearn 14560	SMS
Ranunculus harveyi f. harveyi	0984	Webster	04/12/71	Thompson 35	SMS
Ranunculus harveyi f. pilosus	0984	Christian	04/10/60	Merry	SMS
Ranunculus harveyi f. pilosus	0984	Iron	05/20/80	Redfearn 32253	SMS
Ranunculus sardous	995	Cape Girardeau	12/05/75	Ohmart 736	SEMO
Clematis dioscoreifolia var. dioscoreifolia	1005	Cape Girardeau	11/10/70	T.E. Brooks 5949	SEMO
Podophyllum peltatum f. deamii	1011	Webster	05/11/84	Redfearn 33433	SMS
Stylophorum diphyllum	1023	Cape Girardeau	25/03/76	Terry Wills	SEMO
Brassica rapa	1042	Cape Girardeau	17/05/70	Bill Eddleman 1	SEMO
Brassica napus var. napobrassica	1043	Cape Girardeau	03/05/76	Terry Wills 1	SEMO

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Lepidium campestre	1049	Cape Girardeau	13/04/76	Ohmart 976	SEMO
Lepidium densiflorum var. densiflorum	1052	Cape Girardeau	05/05/76	J. Goldsberry 49	SEMO
Arabis lyrata var. lyrata f. parvisiliqua	1079	Cape Girardeau	07/04/65	Dale Vitt 33	SEMO
Arabis missouriensis	1082	Cape Girardeau	24/03/52	Francis H. Bentley 1	SEMO
Arabis canadensis	1084	Cape Girardeau	26/06/76	Ohmart 1122	SEMO
Rorippa islandica var. fernaldiana	1090	Cape Girardeau	05/05/76	Ohmart 889	SEMO
Rorippa islandica var. hispida	1090	Cape Girardeau	11/06/76	Ohmart 1013	SEMO
Erisimum repandum	1097	Cape Girardeau	30/05/78	Ohmart 2076	SEMO
Sisymbrium officinale var. leiocarpum	1099	Cape Girardeau	05/05/76	G.L. Caplinger 42	SEMO
Heuchera americana var. interior	1124	Cape Girardeau	26/04/77	Joe Touchette 62	SEMO
Pyrus malus	1147	Cape Girardeau	28/04/76	Tom O'Brien 45	SEMO
Pyrus coronaria	1149	Cape Girardeau	01/05/68	Downing 36	SEMO
Crataegus crus-galli	1167	Cape Girardeau	05/05/60	Suzuki	SEMO
Crataegus mollis	1185	Cape Girardeau	02/05/65	Arlon Meyer Jr. 1109	SEMO
Fragaria virginiana	1205	Cape Girardeau	22/04/73	Bill Eddleman	SEMO
Duchesnea indica	1207	Cape Girardeau	09/05/63	C.M. Lesch 165	SEMO
Potentilla norvegica var. norvegica	1211	Cape Girardeau	29/06/76	Ohmart and Thompson 1148	SEMO
Potentilla paradoxa	1213	Cape Girardeau	29/09/76	Ohmart and Thompson 1633	SEMO
Rubus allegheniensis var. plausus	1231	Cape Girardeau	11/05/65	Barbara Hill 101	SEMO
Rubus ostryifolius	1236	Cape Girardeau	07/04/60	Mac Suzuki 83	SEMO
Rosa multiflora	1242	Cape Girardeau	07/05/64	Paula J. Johnson 38	SEMO
Rosa setigera var. setigera f. setigera	1243	Cape Girardeau	07/06/78	Ohmart 2116	SEMO
Rosa canina	1249	Cape Girardeau	31/07/73	Jean Wandel	SEMO
Prunus mexicana	1258	Cape Girardeau	31/03/63	Donald R. Farrar 1023	SEMO

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Prunus americana	1259	Cape Girardeau	15/04/60	Mac Suzuki 83	SEMO
Prunus angustifolia	1262	Cape Girardeau	10/04/69	Furry 1	SEMO
Prunus virginiana	1267	Cape Girardeau	11/05/65	George T. Roberson	SEMO
Desmanthus illinoensis	1269	Cape Girardeau	28/08/76	Ohmart 1448	SEMO
Gymnocladus dioica	1272	Cape Girardeau	11/05/63	Tom Reich 122	SEMO
Gleditsia triacanthos var. inermis	1273	Cape Girardeau	28/09/53	G.E. Cammerer	SEMO
Cassia marilandica	1276	Cape Girardeau	03/08/76	Ohmart and Thompson 1340	SEMO
Cassia fasciculata var. robusta	1279	Cape Girardeau	28/08/76	Ohmart 1443	SEMO
Trifolium reflexum var. reflexum	1297	Cape Girardeau	08/06/76	Ohmart 984	SEMO
Trifolium dubium	1300	Cape Girardeau	27/04/65	Arlon Meyer, Jr. 1964	SEMO
Medicago lupulina var. glandulosa	1302	Cape Girardeau	09/07/76	Kathy Thompson 109	SEMO
Medicago lupulina var. lupulina	1302	Cape Girardeau	09/05/75	Mark Friedlein 124	SEMO
Amorpha fruticosa var. angustifolia	1322	Cape Girardeau	04/05/63	Ann Friemel 79	SEMO
Wisteria frutescens	1325	Cape Girardeau	11/05/63	Tom Reich 40	SEMO
Robinia hispida var. hispida	1327	Cape Girardeau	10/05/70	Mike Mitchell 21	SEMO
Coronilla varia	1335	Cape Girardeau	24/05/68	Graff 69	SEMO
Vicia sativa var. segetalis	1372	Cape Girardeau	30/04/76	Wayne Daume	SEMO
Vicia dasycarpa	1379	Cape Girardeau	06/05/62	Gilbert Baumker	SEMO
Lathyrus hirsutus	1384	Cape Girardeau	04/05/76	Wayne Daume	SEMO
Lathyrus latifolius	1385	Cape Girardeau	14/07/67	Wagner 94	SEMO
Strophostyles helvola var. helvola	1393	Cape Girardeau	01/09/76	Ohmart and Thompson 1501	SEMO
Strophostyles umbellata var. umbellata	1394	Cape Girardeau	03/08/76	Ohmart and Thompson 1338	SEMO
Amphicarpa bracteata var. bracteata	1398	Cape Girardeau	29/07/75	William Teeters 97	SEMO
Oxalis corniculata	1409	Cape Girardeau	18/04/63	Ann Friemel 35	SEMO
Croton capitatus var. capitatus	1432	Cape Girardeau	23/08/78	Ohmart 2175	SEMO

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Acalypha ostryaefolia	1437	Cape Girardeau	13/10/76	Ohmart and Thompson 1663	SEMO
Euphorbia dentata f. dentata	1444	Cape Girardeau	03/09/76	Ohmart 1322	SEMO
Euphorbia heterophylla var. graminifolia	1445	Cape Girardeau	23/09/77	Ohmart and Koehler 2025	SEMO
Euphorbia corollata var. paniculata	1453	Cape Girardeau	13/07/76	Ohmart and Thompson 1257	SEMO
Euphorbia serpens	1456	Cape Girardeau	22/09/76	Ohmart and Thompson 1618	SEMO
Rhus aromatica var. illinoensis	1471	Cape Girardeau	27/04/77	Ohmart 10	SEMO
Acer nigrum	1483	Cape Girardeau	05/03/62	P.L. Roth 1	SEMO
Aesculus glabra var. glabra f. pallida	1487	Cape Girardeau	16/07/76	Ohmart 1260	SEMO
Impatiens pallida	1491	Cape Girardeau	02/06/76	Cosk	SEMO
Rhamnus lanceolata	1496	Cape Girardeau	06/05/62	Donald Culwell	SEMO
Rhamnus caroliniana	1497	Cape Girardeau	10/10/51	Perrochione 106	SEMO
Vitis aestivalis var. aestivalis	1506	Cape Girardeau	11/06/76	Ohmart 1018	SEMO
Abutilon theophrasti	1530	Cape Girardeau	20/10/70	T.E. Brooks 5993	SEMO
Hibiscus syriacus	1531	Cape Girardeau	02/07/58	Ronald d. Reed 109	SEMO
Hibiscus trionum	1534	Cape Girardeau	01/09/76	Ohmart and Thompson 1490	SEMO
Viola pedata var. linearíloba f. alba	1557	Cape Girardeau	20/04/52	Mildred Hadden 115	SEMO
viola triloba f. triloba	1563	Cape Girardeau	17/04/61	Mary L. Casey 115	SEMO
Passiflora incarnata	1573	Cape Girardeau	12/07/67	Baker 41	SEMO
Opuntia compressa	1575	Cape Girardeau	10/05/63	Tom Reich 41	SEMO
Ammannia coccinea	1582	Cape Girardeau	28/08/76	Ohmart 1455	SEMO
Lythrum alatum	1584	Cape Girardeau	31/07/67	Jones 83	SEMO
Jussiaea leptocarpa var. leptocarpa	1593	Cape Girardeau	22/09/76	Ohmart and Thompson 1615	SEMO
Ludwigia alternifolia var. pubescens	1594	Cape Girardeau	30/07/67	Hart 102	SEMO
Chaerophyllum tainturieri	1637	Capr Girardeau	13/04/65	Bill Robbins 14	SEMO
Taenidia integerrima	1658	Cape Girardeau	27/04/65	James Schraer 147	SEMO

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Thaspium trifoliatum var. flavum	1670	Cape Girardeau	02/05/64	Thomas H. McCracken 93	SEMO
Vaccinium arboreum var. arboreum	1694	Cape Girardeau	15/05/65	B. Robbins 145	SEMO
Vaccinium stamineum	1695	Cape Girardeau	12/05/62	G. Baumker	SEMO
Hottonia inflata	1710	Cape Girardeau	20/04/65	Arlon Meyer Jr. 1001	SEMO
Forestiera acuminata	1720	Cape Girardeau	18/04/63	Donald A. Farrar 1075	SEMO
Obolaria virginica	1739	Cape Girardeau	12/05/62	Donald Calwell	SEMO
Asclepias verticillata	1763	Cape Girardeau	27/07/76	Ohmart 1304	SEMO
Ipomoea purpurea	1776	Cape Girardeau	09/07/67	Hart 38	SEMO
Ipomoea pandurata f. leviuscula	1777	Cape Girardeau	13/07/76	Ohmart and Thompson 1251	SEMO
Convolvulus sepium var. sepium f. sepium	1780	Cape Girardeau	29/06/76	Ohmart and Thompson 1136	SEMO
Convolvulus arvensis f. arvensis	1782	Cape Girardeau	00/05/58	Ted Ziegler	SEMO
Cuscuta cuspidata	1783	Cape Girardeau	28/08/76	Ohmart 1475	SEMO
Phlox pilosa var. fulgida f. fulgida	1797	Cape Girardeau	21/04/76	Mike Burnett 74	SEMO
Onosmodium hispidissimum	1821	Cape Girardeau	29/09/76	Ohmart and Thompson 1627	SEMO
Mertensia virginica f. berdi	1836	Cape Girardeau	01/04/73	Bill Eddleman	SEMO
Verbena urticifolia var. urticifolia	1840	Cape Girardeau	09/07/76	Ohmart and Thompson 1208	SEMO
Verbena simplex	1843	Cape Girardeau	16/07/76	Ohmart 1267	SEMO
Verbena bracteata	1844	Cape Girardeau	17/07/72	Russell Clinard 156	SEMO
Verbena canadensis f. canadensis	1845	Cape Girardeau	10/04/74	Alan Boehm	SEMO
Glecoma hederacea var. hederacea	1867	Cape Girardeau	29/04/74	Dan Green 85	SEMO
Stachys palustris var. nipigonensis	1879	Cape Girardeau	03/08/76	Ohmart 1323	SEMO
Monarda fistulosa	1888	Cape Girardeau	18/07/75	Ohmart 874	SEMO
Monarda citriodora	1891	Cape Girardeau	16/06/69	Dufur 32	SEMO
Pycnanthemum pilosum	1903	Cape Girardeau	03/08/76	Ohmart and Thompson 1334	SEMO

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Lycopus americanus var. americanus	1908	Cape Girardeau	28/08/76	Ohmart 1472	SEMO
Mentha arvensis var. villosa f. villosa	1911	Cape Girardeau	01/09/76	Ohmart and Thompson 1494	SEMO
Solanum carolinense f. albiflorum	1924	Cape Girardeau	11/07/67	Wagner 83	SEMO
Lycopersicon esculentum	1928	Cape Girardeau	27/10/76	Ohmart and Thompson 1672	SEMO
Physalis heterophylla var. heterophylla	1931	Cape Girardeau	13/07/76	Ohmart and Thompson 1241	SEMO
Physalis angulata var. pendula	1935	Cape Girardeau	28/08/76	Ohmart 1469	SEMO
Datura stramonium var. tatula	1941	Cape Girardeau	28/08/76	Ohmart 1440	SEMO
Paulownia tomentosa	1947	Cape Girardeau	21/08/78	Ohmart 2168	SEMO
Bacopa rotundifolia	1948	Cape Girardeau	23/09/77	Ohmart and L. Koehler 2024	SEMO
Verbascum blattaria f. erubescens	1961	Cape Girardeau	16/07/76	Ohmart 1265	SEMO
Collinsia verna	1973	Cape Girardeau	02/05/74	Myra Reinbott 38	SEMO
Kickxia elatine	1978	Cape Girardeau	06/11/77	Ohmart 2046	SEMO
Orobanche uniflora	2015	Cape Girardeau	15/05/58	L.J. Daniel	SEMO
Phryma leptostachya var. leptostachya	2025	Cape Girardeau	26/06/76	Ohmart 1120	SEMO
Spermacoce glabra	2049	Cape Girardeau	09/07/76	Ohmart and Thompson 1201	SEMO
Houstonia caerulea	2054	Cape Girardeau	05/04/75	Karen Christian 165	SEMO
Houstonia longifolia var. tenuifolia	2058	Cape Girardeau	07/05/64	Frances Ward 65	SEMO
Lonicera japonica var. japonica	2064	Cape Girardeau	04/05/77	Ohmart	SEMO
Lonicera sempervirens var. sempervirens	2065	Cape Girardeau	02/05/77	Jon Kern 31	SEMO
Valerianella olitoria	2083	Cape Girardeau	30/04/62	Gilbert Baumker	SEMO
Cucurbita pepo var. ovifera	2090	Cape Girardeau	15/09/77	Ohmart 2016	SEMO
Cucumis melo var. melo	2093	Cape Girardeau	29/09/76	Ohmart and Thompson 1631	SEMO
Lobelia spicata var. leptostachys	2107	Cape Girardeau	28/06/76	Ohmart 1121	SEMO
Lobelia spicata var. spicata	2107	Cape Girardeau	22/06/76	Ohmart 1110	SEMO
Vernonia baldwini var. baldwini f. baldwini	2114	Cape Girardeau	16/07/76	Ohmart 1259	SEMO

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Eupatorium altissumum	2119	Cape Girardeau	02/08/76	Ohmart and Thompson 1316	SEMO
Eupatorium incarnatum	2126	Cape Girardeau	12/09/76	Ohmart 1553	SEMO
Solidago juncea f. juncea	2154	Cape Girardeau	27/07/76	Ohmart 1309	SEMO
Solidago rugosa var. aspera	2161	Cape Girardeau	10/09/76	Ohmart and Thompson 1533	SEMO
Boltonia asteroides var. decurrens	2173	Cape Girardeau	03/10/76	T.E. Brooks 7856	SEMO
Aster patens var. patens	2182	Cape Girardeau	24/09/76	Ohmart and Thompson 1644	SEMO
Aster pilosus var. pilosus f. pilosus	2189	Cape Girardeau	12/09/76	Ohmart 1552	SEMO
Aster dumosus var. strictior	2194	Cape Girardeau	10/10/78	Ohmart 2185	SEMO
Aster ontarionis	2197	Cape Girardeau	22/09/76	Ohmart and Thompson 1611	SEMO
Erigeron annuus f. annuus	2207	Cape Girardeau	17/06/52	L.W. Fields 168	SEMO
Erigeron divaricatus	2211	Cape Girardeau	14/07/76	Ohmart and Thompson 1275	SEMO
Iva xanthifolia	2222	Cape Girardeau	03/10/73	Ohmart	SEMO
Silphium perfoliatum f. perfoliatum	2240	Cape Girardeau	16/07/76	Ohmart 1265	SEMO
Heliopsis helianthoides var. scabra	2250	Cape Girardeau	22/06/76	Ohmart 1111	SEMO
Rudbeckia triloba var. triloba	2259	Cape Girardeau	16/07/76	Ohmart 1264	SEMO
Helianthus strumosus	2281	Cape Girardeau	27/07/76	Ohmart 1295	SEMO
Verbesina helianthoides	2286	Cape Girardeau	22/06/76	Ohmart 1109	SEMO
Coreopsis palmata	2295	Cape Girardeau	11/06/76	Ohmart 1010	SEMO
Bidens cernua var. cernua f. cernua	2298	Cape Girardeau	28/08/76	Ohmart 1447	SEMO
Bidens comosa	2300	Cape Girardeau	28/08/76	Ohmart 1467	SEMO
Bidens vulgata var. vulgata f. puberula	2301	Cape Girardeau	01/09/76	Ohmart and Thompson 1496	SEMO
Bidens frondosa var. frondosa f. frondosa	2302	Cape Girardeau	01/09/76	Ohmart and Thompson 1580	SEMO
Bidens bipinnata	2306	Cape Girardeau	18/08/72	T.E. Brooks 6831	SEMO
Anthemis arvensis var. agrestis	2325	Cape Girardeau	09/07/76	Ohmart and Thompson 1204	SEMO

TAXON	MAP #	COUNTY	DATE	COLLECTOR	HERB
Matricaria chamomilla var. chamomilla	2328	Cape Girardeau	11/05/75	Ohmart 734	SEMO
Matricaria matricarioides	2329	Cape Girardeau	02/05/76	Ohmart 886	SEMO
Cirsium altissimum f. altissimum	2359	Cape Girardeau	01/09/76	Ohmart and Thompson 1400	SEMO
Cirsium carolinianum	2360	Cape Girardeau	02/05/64	Joan Blann 6	SEMO
Hypochaeris radicata	2379	Cape Girardeau	26/06/78	Ohmart 2130	SEMO
Tragopogon dubius	2382	Cape Girardeau	06/11/77	Ohmart 2041	SEMO
Taraxacum officinale	2385	Cape Girardeau	09/05/52	Harvey Shell	SEMO
Sonchus oleraceus f. oleraceus	2387	Cape Girardeau	07/07/72	R. Clinard and T.E. Brooks 94	SE MO
Lactuca canadensis var. latifolia f. latifolia	2391	Cape Girardeau	03/08/76	Ohmart and Thompson 1329	SEMO
Lactuca canadensis var. longifolia f. angustipes	2391	Cape Girardeau	03/08/76	Ohmart and Thompson 1330	SEMO
Lactuca canadensis var. longifolia f. longifolia	2391	Cape Girardeau	02/08/76	Ohmart 1315	SEMO
Lactuca canadensis var. obovata f. obovata	2391	Cape Girardeau	04/08/76	Thompson 142	SEMO
Lactuca floridana var. floridana f. floridana	2395	Cape Girardeau	10/09/76	Ohmart and Thompson 1535	SEMO
Lactuca floridana var. villosa	2395	Cape Girardeau	10/09/76	Ohmart and Thompson 1536	SEMO